



DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

[Docket No. FWS–R2–ES–2020–0093; FXES11130200000–201–FF02ENEH00]

Endangered and Threatened Wildlife and Plants; Draft Recovery Plan for Guadalupe Fescue

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notice of availability; request for comment.

SUMMARY: We, the U.S. Fish and Wildlife Service, announce the availability of our draft recovery plan for Guadalupe fescue, a plant endemic to high mountains in the Chihuahuan desert, in the Trans-Pecos region of Texas and in Coahuila, Mexico, and listed as endangered under the Endangered Species Act. We provide this notice to seek comments from the public and Federal, Tribal, State, and local governments.

DATES: We must receive written comments on or before [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*].

ADDRESSES: *Reviewing documents:* You may obtain a copy of the draft revised recovery plan, recovery implementation strategy, and species status assessment in Docket No. FWS–R2–ES–2020–0093 at <http://www.regulations.gov>.

Submitting Comments: You may submit comments by one of the following methods:

- Federal eRulemaking Portal: <http://www.regulations.gov>. Follow the instructions for submitting comments on Docket No. FWS–R2–ES–2020–0093.
- U.S.: Public Comments Processing; Attn: Docket No. FWS–R2–ES–2020–0093; U.S. Fish and Wildlife Service Headquarters, MS: PRB/3W; 5275 Leesburg Pike, Falls Church, VA 22041–3803.

For additional information about submitting comments, see **Request for Public Comments** and **Public Availability of Comments** under **SUPPLEMENTARY INFORMATION**.

FOR FURTHER INFORMATION CONTACT: Adam Zerrenner, Austin Ecological Services Field Office, by phone at 512–490–0057, by email at adam_zerrenner@fws.gov, or via the Federal Relay Service at 800–877–8339 for TTY service.

SUPPLEMENTARY INFORMATION: We, the U.S. Fish and Wildlife Service (Service), announce the availability of our draft recovery plan for Guadalupe fescue (*Festuca ligulata*), listed as endangered under the Endangered Species Act of 1973, as amended (ESA; 16 U.S.C. § 1531 *et seq.*). Guadalupe fescue is a plant endemic to montane “sky island” habitats in the Chihuahuan Desert in Trans-Pecos Texas and in Coahuila, Mexico. The draft recovery plan includes specific recovery objectives; site-specific management actions; objective, measurable criteria that, when achieved, will enable us to remove Guadalupe fescue from the list of endangered and threatened plants; and an estimated time and cost to recovery. We request review and comment on this plan from local, State, and Federal agencies; Tribes; and the public. We will also accept any new information on the status of Guadalupe fescue throughout its range to assist in finalizing the recovery plan.

Background

Recovery of endangered or threatened animals and plants to the point at which they are again secure, self-sustaining members of their ecosystems is a primary goal of our endangered species program and the ESA. Recovery means improvement of the status of listed species to the point at which listing is no longer appropriate under the criteria set out in section 4(a)(1) of the ESA. The ESA requires the development of recovery plans for listed species, unless such a plan would not promote the conservation

of a particular species.

We used a streamlined approach to recovery planning and implementation by first conducting a species status assessment (SSA) of Guadalupe fescue (Service 2016), which is a comprehensive analysis of the taxon's needs, current condition, threats, and future viability. The information in the SSA report provides the biological background, a threats assessment, and a basis for a strategy for recovery of Guadalupe fescue. We then used this information to prepare an abbreviated draft recovery plan for Guadalupe fescue that includes objective, measurable recovery criteria, prioritized and site-specific recovery actions, and the estimated time and cost to recovery (Service 2020a). We have also prepared a separate recovery implementation strategy that includes the specific tasks necessary to implement recovery actions (Service 2020b).

Summary of Species Information

Guadalupe fescue (*Festuca ligulata*) is a perennial, rhizomatous (horizontal stems below ground) bunchgrass within the Poaceae (grass) family. The species occurs in scattered patches in the understory of conifer-oak woodlands in the high mountains of the Chihuahuan Desert, above 1,800 m (5,905 ft) elevations. Guadalupe fescue flowers mostly during the late summer and early autumn, in response to the region's monsoon rains. The breeding system of Guadalupe fescue is currently unknown; however, since widely dispersed populations have persisted, Guadalupe fescue is likely capable of self-fertilization as well as outcrossing (USFWS 2015). The species has a short lifespan, with relatively low fecundity. The average lifespan for Guadalupe fescue ranges from 3.1 to 3.9 years, and estimated annual survival rates range from 0.62 to 0.75. About 41 percent of individuals die before they are able to reproduce (USFWS 2015).

Historically, the distribution of Guadalupe fescue was limited to six small sites, ranging from Guadalupe Mountains National Park, Texas, in the north, to El Fraile,

Coahuila, in the south. Currently, there are only two known extant populations within the species' historical range: One in Boot Canyon within Big Bend National Park, Texas; and one in the Maderas del Carmen *Area de Protección de Flora y Fauna* (APFF; Protected Area for Plants and Animals), Coahuila. Two populations of Guadalupe fescue are considered extirpated, as no plants were located during recent survey efforts (McKittrick Canyon in Texas and Sierra el Jardin in Mexico), and two other populations in Mexico (northwest of El Fraile and Sierra de la Madera) have not been surveyed since 1941 and 1977, respectively, and thus their status is unknown.

All known populations of the Guadalupe fescue consist of multiple small groups of individuals. Prior to listing, the Boot Canyon population in Big Bend National Park was protected through a candidate conservation agreement established in 2008, and has been monitored almost every year since 1993. The total estimated population size within Boot Canyon is 1,787 individuals, scattered over an area of about 22.7 ha (56.1 ac) (Whiting et al. 2020). The population at APFF Maderas del Carmen, although privately owned, is protected from development through the Mexican federal system of Protected Natural Areas (Áreas Naturales Protegidas). This population was observed in 2003, 2007, 2009, and most recently in 2019 and 2020 when approximately 140 individuals were documented. However, botanists have not yet determined the size of this population due to the difficult access, remote location, and rugged terrain of this 208,381-ha (514,910-ac) protected area.

To ensure the long-term viability of Guadalupe fescue in the wild, the species requires the conservation of multiple resilient and genetically diverse populations that represent the full range of the species' ecological adaptations to the sky island habitats of the Chihuahuan Desert in both Texas and Mexico. Currently, there are only two known extant populations of Guadalupe fescue within the species' historical range. The most important factors that may affect the continued survival of Guadalupe fescue within these

populations include changes in the wildfire cycle and vegetation structure, competition from invasive species, and the demographic and genetic consequences of small, isolated populations. Within the Chisos Mountains in Texas, the conifer-oak woodlands had experienced relatively frequent, low-intensity wildfires for centuries, and Guadalupe fescue is believed to have evolved with this fire ecology. However, wildfire has been suppressed at Big Bend National Park since the park's establishment in 1944 and there have been no recent natural or prescribed fires within Boot Canyon. The absence of wildfire in Boot Canyon has resulted in the accumulation of leaf litter and small-diameter trees, which increases the risk of a much more intense wildfire that would potentially be catastrophic to the vegetation within the Chisos Mountains and to the Guadalupe fescue population there. For these reasons, reducing fuel loads in the Chisos Mountains and conducting small-scale experimental prescribed burns in collaboration with personnel of Big Bend National Park are high priority recovery actions.

Horehound (*Marrubium vulgare*), King Ranch bluestem (*Bothriochloa ischaemum*), and other invasive plant species potentially threaten Guadalupe fescue through competition for water, nutrients, and light. The 2008 candidate conservation agreement calls for periodic monitoring of the Guadalupe fescue population and control of invasive species, and Big Bend National Park has also proposed a programmatic management plan to carefully monitor and control invasive species in the Chisos Mountains. Therefore, the magnitude of this threat is currently low within the Boot Canyon population. We have no information on introduced invasive species in the known Mexican sites or their impacts on Guadalupe fescue (Service 2016).

In general, the physical clustering of numerous genetically diverse plants in close proximity is necessary for effective fertilization, out-crossing, seed production, and the maintenance of genetically diverse populations. However, considering the small population size and low population density of the Chisos Mountains site, this population

is very likely to be highly inbred as a result of extensive self-fertilization. Currently, we cannot project what the net results of beneficial and detrimental effects of climate changes will be (Service 2016).

Recovery Plan Goals

The objective of a recovery plan is to provide a framework for the recovery of a species so that protection under the ESA is no longer necessary. A recovery plan includes scientific information about the species and provides objective and measurable criteria and site-specific management actions necessary for us to be able to reclassify the species to threatened status or remove it from the lists of endangered and threatened wildlife and plants. Recovery plans help guide our recovery efforts by describing actions we consider necessary for the species' conservation, and by estimating time and costs for implementing needed recovery measures.

The primary objectives of this recovery plan are to: (1) Increase population resilience by managing habitats to promote population growth, and controlled propagation to augment population sizes to attain and sustain minimum viable population (MVP) levels within each population or metapopulation; (2) increase species redundancy through searches for undiscovered populations in areas of potential habitat, and through propagation and reintroduction into potential habitats; and (3) sustain species representation through conservation of populations throughout the species' range, and investigate the potential benefits and risks of genetic augmentation of extant populations. The recovery plan provides objective, measurable recovery criteria aimed at managing or eliminating threats to meet the goal of delisting Guadalupe fescue. These recovery criteria are based on the conservation of habitat, natural recruitment of new individuals, their growth to maturity, and the increase of populations to a viable level that is sustained without further human intervention (other than appropriate habitat management). The

time frame required to assess the species viability trends of Guadalupe fescue is influenced largely by its life history and climate cycles.

Site specific management actions include: investigating changes in wildfire frequency and evaluating the response of Guadalupe fescue to prescribed burns; monitoring and management of introduced invasive plants; public education and management of sensitive habitat in recreational areas of Boot Canyon; preventing grazing from pack animals and livestock in Boot Canyon; improving knowledge of the species' abundance, distribution and demographic trends in known populations and surveying other potential habitats in Texas and Mexico; investigating gene flow, genetic diversity and conservation genetics; developing a propagation and reintroduction program; and investigating responses to climate factors and projecting future responses of known populations to climate changes.

Request for Public Comments

Section 4(f) of the ESA requires us to provide public notice and an opportunity for public review and comment during recovery plan development. It is also our policy to request peer review of recovery plans (July 1, 1994; 59 FR 34270). In an appendix to the approved recovery plan, we will summarize and respond to the issues raised by the public and peer reviewers. Substantive comments may or may not result in changes to the recovery plan; comments regarding recovery plan implementation will be forwarded as appropriate to Federal or other entities so that they can be taken into account during the course of implementing recovery actions. Responses to individual commenters will not be provided, but we will provide a summary of how we addressed substantive comments in an appendix to the approved recovery plan.

We invite written comments on the draft recovery plan. In particular, we are interested in additional information regarding the current threats to the species and the

implementation of the recommended recovery actions.

Public Availability of Comments

All comments received, including names and addresses, will become part of the administrative record and will be available to the public. Before including your address, phone number, email address, or other personal identifying information in your comment, you should be aware that your entire comment—including your personal identifying information—may be made publicly available. If you submit a hardcopy comment that includes personal identifying information, you may request at the top of your document that we withhold this information from public review. However, we cannot guarantee that we will be able to do so.

Authority

We developed our draft recovery plan and publish this notice under the authority of section 4(f) of the Endangered Species Act of 1973, as amended (16 U.S.C. § 1531 *et seq.*).

Amy L. Lueders,
Regional Director, Interior Region 6,
Albuquerque, New Mexico.

[FR Doc. 2021-09709 Filed: 5/6/2021 8:45 am; Publication Date: 5/7/2021]